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In reply, reference letter number: G-CAO-22-100810

U.S. Department of Transportation  
Docket Operations  
West Building Ground Floor, Room W12-140  
1200 New Jersey Avenue, SE.  
Washington, DC 20590

Subject: Response to Request for Additional Information in Support of Request for Exemption from Section 25.809(a) of Title 14 Code of Federal Regulations, Overwing Emergency Exits Viewing Means

Reference(s): 1) G-CAO-22-100393, Request for Exemption from Section 25.809(a) of Title 14 Code of Federal Regulations, Overwing Emergency Exits Viewing Means, dated March 10, 2022  
2) FAA letter in response to GAC letter G-CAO-22-100393, sent April 29, 2022

ODA Project Number(s): AT-01-2015-0017

Dear Sirs:

Gulfstream is providing a response to FAA letter sent April 29, 2022 (Reference 2), which requested additional information to support consideration of Gulfstream's petition for relief from the requirements of title 14, Code of Federal Regulations (14 CFR) § 25.809(a) for the Gulfstream Model GVIII-G800 airplane.

In accordance with 14 CFR Part 11, Gulfstream Aerospace Corporation requested consideration of a petition to relieve the Gulfstream GVIII-G800 model aircraft from full compliance with 14 CFR 25.809(a) at amendment 25-116, Emergency Exit Arrangement, for the requirement to provide a means to view the areas of evacuee ground contact prior to opening the overwing exit window. (Reference 1).

Gulfstream is providing the following information to support consideration of the requested petition for exemption for the Gulfstream GVIII-G800 model aircraft, a derivative model of the GVI aircraft (Reference 1):

1. FAA Comment: The requested relief is for the Model GVIII-G800 airplane. However, it is the FAA's understanding the GVIII-G800 is a marketing name and not the name that will be on the Type Certificate Data Sheet (TCDS). Please clarify and provide a revised

petition for exemption with the official name that will be on the TCDS that will align with the certification basis in lieu of the marketing name.

Gulfstream Response:

The model number to appear on the TCDS will be GVIII-G800. Gulfstream notes that G800 is the marketing name.

2. FAA comment: Please elaborate further on how this request does not adversely affect safety, and how it provides a level of safety at least equal to that provided by the rule as noted in 14 CFR § 11.81(e).

Gulfstream Response:

Gulfstream is providing the following information to elaborate further on how granting this request does not adversely affect safety, or how the exemption would provide a level of safety at least equal to that provided by the rule.

The FAA has previously noted that the impact of the regulation, as codified, went beyond what was envisioned in the rulemaking process for the overwing exits on some airplanes. The rule itself refers to the ground-contact view separately from the view of conditions outside the exit, but the FAA has noted that the intent of the rule was not clearly expressed in the rule language. The FAA provided the following on Notice of Proposed Rulemaking (Notice No. 96-9):

With respect to the potential for the exit to be somewhat remote from the point where the evacuees would contact the ground, the FAA agrees that this may be the case. The intent of the requirement is to enable a person to ascertain whether to open an exit, and whether it is safe to evacuate through the exit, based on an assessment of the outside conditions. To the extent that the means used for determination of the former does not also allow an assessment of the ground, the FAA agrees that an additional viewing means may be necessary, and that the additional means may be somewhat remote from the exit. We have therefore reworded the amendment to allow for the dual purpose of the viewing means, and to distinguish the required locations of the two.

GVIII-G800 design features the large elliptical window which allows for outside viewing to assess the outside conditions prior to opening the exit. The evacuee can then open the exit and step out onto the wing and move along the wing to assess the conditions where they would make first contact to the ground. At that point, if the conditions were not acceptable, evacuees would search for another location from which to exit off of the wing. The GVIII-G800 design features and aircraft configuration provide a level of safety consistent with the FAA's expressed intent of the rule.

3. FAA comment: Please elaborate further on how this request is in the public interest per § 11.81(d).

Gulfstream Response:

Gulfstream is providing the following information to elaborate further on how granting this request would be in the public interest.

a) Reduced cost, fuel consumption, emissions, and noise

The model GVIII-G800 is equipped with Rolls-Royce BR700-730B2-14 (Pearl 700) engines. When compared under similar conditions to the previous generation Rolls-Royce engines used on the earlier Gulfstream model airplanes, the Pearl 700 engine significantly reduces specific fuel consumption, NOx emissions, visible smoke, and noise. Since an alternate viewing means will add cost, weight, and complexity to the aircraft, customers may opt for an older aircraft with higher fuel consumption, emissions, and noise in lieu of the GVIII-G800. Granting this exemption would incentivize business jet operators to replace older aircraft with model GVIII-G800 airplanes.

This would result in reduced operating costs, fuel consumption, emissions, and noise, all benefits to the general public.

b) Fostering a competitive national aviation industry

The ability to provide overwing exit viewing means without significant cost, weight, and complexity allows the GVIII-G800 to better compete with products of European and other foreign aircraft manufacturers. The requirement for such a viewing means adversely affects the ability of the model GVIII-G800 to compete with older aircraft and with current airplanes that do not have a similar limitation due to existing exemptions.

Granting this exemption would help to foster a competitive national aviation industry, which is a benefit to the general public.

c) Advancement of Aircraft Safety

Granting this exemption would incentivize business jet operators to replace older aircraft with model GVIII-G800 airplanes. Since an alternate viewing means will add cost, weight, and complexity to the aircraft, customers may opt for an older aircraft designed to an earlier certification basis, in lieu of the GVIII-G800. This will restrict advancements in safety introduced by Gulfstream with the GVIII-G800, not only in the areas of the cabin safety, but throughout the airplane.

This is counterproductive to both Gulfstream and the FAA's goal of continuous improvement in overall safety. The advancement of aircraft safety is in the interest of the public.

4. FAA Comment: Please clarify and provide information on the Type I, Main Entry Door (MED) and if it is considered an "emergency exit" on this make/model of aircraft. The referenced Equivalent Level of Safety (ELOS), TC8700AT-T-C-1, speaks to the four emergency over wing exits but does not clarify if the MED is considered an emergency exit. Since this is a new make/model supporting information that the MED is an emergency exit is requested to support the statement in the request.

Gulfstream Response:

Gulfstream confirms that the Main Entry Door is considered a Type I emergency exit.

5. FAA Comment: Please clarify what is being requested with regards to the EASA referenced information. Sections 25.809 (a) and Certification Specification (CS) 25.809(a) do not appear on the EASA Significant Standard Differences List. Please clarify if Gulfstream is trying to address Section 11.81(h) with this information. If that is the intent can Gulfstream please provide additional information as noted in § 11.81(h).

Gulfstream Response:

Gulfstream did not intend to imply EASA referenced information was to be used to address Section 11.81(h). Gulfstream provided this information as historical supportive background information since the FAA has previously noted that the impact of the regulation, as codified went beyond what was envisioned in the rulemaking process for the overwing exits on some airplanes. The FAA has noted that the FAA worked with EASA to improve the rule language based on the FAA's experience applying this rule. The references to EASA are intended to show how Gulfstream will comply with the improved language developed by coordination between EASA and FAA and documented in Certification Specifications (CS) at amendment 25/12, dated July 13, 2012.

Separate from the EASA referenced information, Gulfstream requests that consideration be given to extending this exemption for operation outside of the United States. Gulfstream aircraft are routinely registered and operated outside of the United States and projections are the same for the Model GVIII-G700. Granting this extension of privileges will allow for operations based within foreign countries, having bilateral agreements with the United States accepting FAA 14 CFR Part 25 as their airworthiness standard for transport category aircraft. Gulfstream believes that limiting this exemption to use within the United States would put unfair restrictions on the marketability of this aircraft.

Should you have any further questions, or require any additional information, please contact CAO Airworthiness Engineering Specialist Andrea Burkhardt at [Andrea.Burkhardt@gulfstream.com](mailto:Andrea.Burkhardt@gulfstream.com) or (912) 251-1712 (office), or TC Program Administrator Tom Strohmayer at [Thomas.Strohmayer@gulfstream.com](mailto:Thomas.Strohmayer@gulfstream.com), (912) 395-7778 (office) or (912) 433-6002 (mobile).

Respectfully,



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